

## SYLLABUS

### 1. Program information

|                                   |                                                                                   |
|-----------------------------------|-----------------------------------------------------------------------------------|
| 1.1 Higher education institution  | Technical University of Cluj-Napoca                                               |
| 1.2 Faculty                       | Faculty of Electronics, Telecommunications and Information Technology             |
| 1.3 Department                    | Bases of Electronics                                                              |
| 1.4 Field of study                | Electronic engineering, telecommunications and information technologies           |
| 1.5 Cycle of study                | Bachelor of Science                                                               |
| 1.6 Study program / Qualification | Electronic engineering, telecommunications and information technologies/ Engineer |
| 1.7 Form of education             | IF – full-time education                                                          |

### 2. Course information

|                                                                  |                                                                          |                        |       |
|------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------|-------|
| 2.1 Course title                                                 | French language 1                                                        | Course code            | 14.20 |
| 2.2 Course coordinator                                           | Assoc. Prof. Cristiana Bulgaru, PhD,<br>Cristiana.Bulgaru@lang.utcluj.ro |                        |       |
| 2.3 Seminar/ laboratory/ project/ practical activity coordinator | Assoc. Prof. Cristiana Bulgaru, PhD<br>Cristiana.Bulgaru@lang.utcluj.ro  |                        |       |
| 2.4 Year of study                                                | I                                                                        | 2.5 Semester           | 1     |
|                                                                  |                                                                          | 2.6 Type of assessment | V     |
| 2.7 Course status                                                | Formative category                                                       |                        | DC    |
|                                                                  | Optionality                                                              |                        | DOP   |

### 3. Estimated total time

|                                                                                                    |    |           |             |    |             |    |                |   |             |   |                        |   |
|----------------------------------------------------------------------------------------------------|----|-----------|-------------|----|-------------|----|----------------|---|-------------|---|------------------------|---|
| 3.1 Hours per week                                                                                 | 3  | of which: | 3.2 Lecture | 2  | 3.3 Seminar | 1  | 3.3 Laboratory | 0 | 3.3 Project | 0 | 3.3 Practical training | 0 |
| 3.4 Hours per semester                                                                             | 42 | of which: | 3.5 Lecture | 28 | 3.6 Seminar | 14 | 3.6 Laboratory | 0 | 3.6 Project | 0 | 3.3 Practical training | 0 |
| 3.7 Time distribution (hours per semester) for individual study and assessment:                    |    |           |             |    |             |    |                |   |             |   |                        |   |
| (a) Assessment                                                                                     |    |           |             |    |             |    |                |   |             |   | 2                      |   |
| (b) Study using textbook, course materials, bibliography, and notes                                |    |           |             |    |             |    |                |   |             |   | 2                      |   |
| (c) Additional documentation in the library, on specialized electronic platforms, and in the field |    |           |             |    |             |    |                |   |             |   | 2                      |   |
| (d) Preparation for seminars/laboratories, assignments, reports, portfolios and essays             |    |           |             |    |             |    |                |   |             |   | 2                      |   |
| (e) Tutoring                                                                                       |    |           |             |    |             |    |                |   |             |   |                        |   |
| (f) Other activities                                                                               |    |           |             |    |             |    |                |   |             |   |                        |   |
| 3.8 Total hours of individual study and assessment (sum of (3.7(a))...3.7(f))                      |    |           |             |    |             |    |                |   | 8           |   |                        |   |
| 3.9 Total hours per semester (3.4+3.8)                                                             |    |           |             |    |             |    |                |   | 50          |   |                        |   |
| 3.10 Number of credits                                                                             |    |           |             |    |             |    |                |   | 2.0         |   |                        |   |

#### 4. Prerequisites (where applicable)

|                  |                                                                          |
|------------------|--------------------------------------------------------------------------|
| 4.1 curriculum   |                                                                          |
| 4.2 competencies | Level A2 The Common European Framework of Reference for Languages (CEFR) |

#### 5. Requirements (where applicable)

|                                                              |                                                                                                                                                    |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1. for the development of the lecture                      | Classroom equipped with audiovisual equipment for the presentation of course materials and students' projects/presentations, with Internet access. |
| 5.2. for the development of the seminar/ laboratory/ project | Class attendance, individual study and homework completion.                                                                                        |

#### 6. Specific competencies acquired

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Professional competencies | <p><b>CP1</b> Use of the French language for understanding and producing oral and written messages in professional and academic contexts specific to the field of study.</p> <p><b>CP2</b> Analysis, interpretation, and drafting of technical and scientific documents using the linguistic structures and terminology specific to professional communication.</p> <p><b>CP3</b> Presentation and justification of technical information in a clear, coherent, and audience-appropriate manner, in accordance with the principles of professional communication.</p>                                                    |
| Transversal competencies  | <p><b>CT1</b> Effective use of communication and collaboration strategies in individual and team-based activities.</p> <p><b>CT2</b> Demonstration of responsibility and accuracy in the preparation and presentation of professional information.</p> <p><b>CT3</b> Identification of lifelong learning opportunities and effective use of information sources and professional communication and training resources (Internet portals, specialized software applications, databases, online courses, etc.) in Romanian and in an international language (French) to support personal and professional development.</p> |

#### 7. Expected learning outcomes

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Knowledge | <p>Upon successful completion of the course, the student /graduate will be able to demonstrate knowledge of:</p> <ul style="list-style-type: none"> <li>• the specific features of oral and written professional communication in French;</li> <li>• the characteristics of scientific and technical discourse;</li> <li>• the structure and functions of the main professional and technical documents;</li> <li>• the linguistic structures used for defining, classifying, describing, comparing, arguing, and explaining technical processes;</li> <li>• the fundamental terminology specific to the field of study;</li> <li>• the writing conventions and standards applicable to technical and scientific communication.</li> </ul> |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skills                      | <p>Upon successful completion of the course, the student/ graduate will be able to:</p> <ul style="list-style-type: none"> <li>• understand authentic technical and professional documents;</li> <li>• extract and synthesize relevant information from specialized texts;</li> <li>• draft simple professional and technical texts (descriptions, explanations, presentations);</li> <li>• describe the operation of devices and technological processes using appropriate terminology;</li> <li>• interpret data presented in the form of graphs, tables, charts, and diagrams;</li> <li>• deliver clear and coherent oral presentations on technical topics.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                              |
| Responsibility and autonomy | <p>Upon successful completion of the course, the student / graduate will be able to:</p> <ul style="list-style-type: none"> <li>• use information sources and specialized terminology responsibly and independently;</li> <li>• comply with the conventions of professional communication;</li> <li>• adapt their communication to the purpose, context, and audience;</li> <li>• self-assess and continuously improve their French communication skills;</li> <li>• apply logical reasoning, critical evaluation, and self-evaluation in decision-making;</li> <li>• communicate engineering-related activities effectively to a wide range of audiences;</li> <li>• apply the ethical values and professional standards of the engineering profession;</li> <li>• work effectively both as a team member and as a team leader;</li> <li>• promote dialogue, cooperation, respect for others, and intercultural awareness;</li> <li>• engage in lifelong learning by acquiring and applying new knowledge as needed, using appropriate learning strategies.</li> </ul> |

#### 8. Course objectives (based on the grid of specific competencies acquired)

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.1 General objective of the course | <p>To develop students' competencies in understanding, analyzing, and producing scientific and technical discourse in French at the B1 level of the Common European Framework of Reference for Languages (CEFR), through the acquisition of the principles of professional communication, the linguistic structures of technical and scientific writing, and the specialized terminology relevant to their field of study.</p>                                                                                                                                                                                                                                                                                                                            |
| 8.2 Specific objectives             | <ul style="list-style-type: none"> <li>• To identify the specific features of oral and written professional communication;</li> <li>• To identify the characteristics of scientific and technical discourse;</li> <li>• To apply the writing conventions specific to professional communication;</li> <li>• To use the linguistic structures required for defining, classifying, describing, comparing, and explaining technical processes;</li> <li>• To identify the mechanisms involved in the formation of technical vocabulary;</li> <li>• To use the fundamental terminology specific to the students' field of study;</li> <li>• To interpret and describe information presented in the form of formulas, tables, graphs, and diagrams.</li> </ul> |

## 9. Contents

| 9.1 Lecture                                                                                                                                                                                                                                                                | No. of hours | Teaching methods                                                                                                                                                                                                                 | Remarks |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b>1. Communication in a professional context:</b> <ul style="list-style-type: none"> <li>• oral communication;</li> <li>• written communication;</li> <li>• formal and informal styles;</li> <li>• language registers.</li> </ul>                                         | 2            | <ul style="list-style-type: none"> <li>• Interactive teaching;</li> <li>• Guided discussion;</li> <li>• Practical text-processing, writing, and rewriting exercises carried out individually, in pairs, or in groups.</li> </ul> |         |
| <b>2. Written communication - General principles:</b> <ul style="list-style-type: none"> <li>• types of texts;</li> <li>• writing styles.</li> </ul>                                                                                                                       | 2            |                                                                                                                                                                                                                                  |         |
| <b>3. Scientific and technical discourse:</b> <ul style="list-style-type: none"> <li>• characteristics;</li> <li>• terminology.</li> </ul>                                                                                                                                 | 2            |                                                                                                                                                                                                                                  |         |
| <b>4. Main document types in scientific and technical communication:</b> <ul style="list-style-type: none"> <li>• technical data sheet;</li> <li>• user manual;</li> <li>• technical report;</li> <li>• technical specifications;</li> <li>• scientific poster.</li> </ul> | 2            |                                                                                                                                                                                                                                  |         |
| <b>5. Technical writing - General principles:</b> <ul style="list-style-type: none"> <li>• readability;</li> <li>• coherence;</li> <li>• conciseness;</li> <li>• audience awareness.</li> </ul>                                                                            | 2            |                                                                                                                                                                                                                                  |         |
| <b>6. Technical writing – Conventions:</b> <ul style="list-style-type: none"> <li>• grammar, spelling and punctuation;</li> <li>• typographical conventions.</li> </ul>                                                                                                    | 2            |                                                                                                                                                                                                                                  |         |
| <b>7. Text organization:</b> <ul style="list-style-type: none"> <li>• simple sentence;</li> <li>• complex sentence;</li> <li>• paragraph structure;</li> <li>• logical connectors.</li> </ul>                                                                              | 2            |                                                                                                                                                                                                                                  |         |
| <b>8. Discourse structures I:</b> <ul style="list-style-type: none"> <li>• definition;</li> <li>• classification;</li> <li>• exemplification.</li> </ul>                                                                                                                   | 2            |                                                                                                                                                                                                                                  |         |
| <b>9. Discourse structures II:</b> <ul style="list-style-type: none"> <li>• description;</li> <li>• comparison;</li> <li>• evaluation.</li> </ul>                                                                                                                          | 2            |                                                                                                                                                                                                                                  |         |
| <b>10. Functional language expressing:</b> <ul style="list-style-type: none"> <li>• obligation;</li> </ul>                                                                                                                                                                 | 2            |                                                                                                                                                                                                                                  |         |

| 9.1 Lecture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | No. of hours | Teaching methods | Remarks |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------|---------|
| <ul style="list-style-type: none"> <li>• recommendation;</li> <li>• prohibition;</li> <li>• possibility.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |                  |         |
| <b>11. Explanatory structures expressing:</b> <ul style="list-style-type: none"> <li>• sequence of stages;</li> <li>• cause and consequence;</li> <li>• purpose.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2            |                  |         |
| <b>12. Scientific and technical vocabulary:</b> <ul style="list-style-type: none"> <li>• word-formation processes;</li> <li>• neologisms;</li> <li>• international terms;</li> <li>• abbreviations and acronyms.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2            |                  |         |
| <b>13. Representation of technical information:</b> <ul style="list-style-type: none"> <li>• numbers and numerical values;</li> <li>• units of measurement;</li> <li>• formulas;</li> <li>• symbols;</li> <li>• tables, graphs, and diagrams.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2            |                  |         |
| <b>14. Written examination.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2            |                  |         |
| <b>Bibliography:</b> <ol style="list-style-type: none"> <li>1. Bulgaru Cristiana, <i>Le français de la science et de la technique</i> - Unpublished course notes</li> <li>2. Bulgaru, Cristiana et alii (2024), <i>Teste de competență lingvistică</i>, R. Literat, A. Forna (ed.), Ed. Utpress</li> <li>3. Dubois, J-M., <i>La rédaction scientifique</i>, ESTEM, AUF, 2005</li> <li>4. Ferréol G., Flageul N., (1996), <i>Méthodes et techniques de l'expression écrite et orale</i>, Armand Colin, Paris</li> <li>5. Miquel, Claire, (2024), <i>Nouvelle grammaire en dialogues – B1</i>, Clé International, Paris</li> <li>6. Pellizzari-Carmes Denise, Borderieux, Julien, (2010), <i>Communication scientifique et technique pour l'élève ingénieur</i>, Dunod, Paris</li> </ol> |              |                  |         |

| 9.2 Seminar /laboratory /project /practical training                                                                                                                                        | No. of hours | Teaching methods                                                                                                                                                                                            | Remarks |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b>1. Electronics in everyday life:</b> <ul style="list-style-type: none"> <li>• electronic devices: description, operation, applications, and advantages.</li> </ul>                       | 2            | <ul style="list-style-type: none"> <li>• Interactive teaching;</li> <li>• Guided discussion;</li> <li>• Practical text-processing, writing, and rewriting exercises carried out individually, in</li> </ul> |         |
| <b>2. Networks and telecommunications:</b> <ul style="list-style-type: none"> <li>• information transmission;</li> <li>• describing a network.</li> </ul>                                   | 2            |                                                                                                                                                                                                             |         |
| <b>3. Artificial intelligence and engineering - advantages and disadvantages:</b> <ul style="list-style-type: none"> <li>• expressing opinions;</li> <li>• simple argumentation.</li> </ul> | 2            |                                                                                                                                                                                                             |         |
| <b>4. Data security and protection:</b>                                                                                                                                                     | 2            |                                                                                                                                                                                                             |         |

| 9.2 Seminar /laboratory /project /practical training                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | No. of hours | Teaching methods     | Remarks |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------|---------|
| <ul style="list-style-type: none"><li>describing cybersecurity risks;</li><li>giving instructions and making recommendations.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              | pairs, or in groups. |         |
| <b>5. Future technologies - robots, drones and intelligent vehicles:</b> <ul style="list-style-type: none"><li>comparing technologies;</li><li>expressing predictions and future development possibilities.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2            |                      |         |
| <b>6. Sustainable energy and green electronics:</b> <ul style="list-style-type: none"><li>energy efficiency, recycling and eco-design;</li></ul> expressing cause-and-effect relationships                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2            |                      |         |
| <b>7. Oral assessment - Description of a device:</b> student mini-poster presentations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2            |                      |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |                      |         |
| <b>Bibliography :</b> <ol style="list-style-type: none"><li>Bulgaru Cristiana, <i>Le français de la science et de la technique</i> - Unpublished course note</li><li>Bulgaru, Cristiana et alii (2024), <i>Teste de competență lingvistică</i>, R. Literat, A. Forna (ed.), Ed. Utpress</li><li>Dubois, J-M., <i>La rédaction scientifique</i>, ESTEM, AUF, 2005</li><li>Ferréol G., Flageul N., (1996), <i>Méthodes et techniques de l'expression écrite et orale</i>, Armand Colin, Paris</li><li>Miquel, Claire, (2024), <i>Nouvelle grammaire en dialogues – B1</i>, Clé International, Paris</li><li>Pellizzari-Carmes Denise, Borderieux, Julien, (2010), <i>Communication scientifique et technique pour l'élève ingénieur</i>, Dunod, Paris</li></ol> |              |                      |         |

**10. Alignment of the course contents with the expectations of the epistemic community, professional associations, and representative employers in the field related to the program**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <p>The course content and the teaching-learning-assessment methods are aligned with the current requirements of the Electronics, Telecommunications, and Information Technology Engineering field, considering the expectations of the academic and professional community, representative employers, as well as the national quality assurance standards in higher education. The course helps prepare students in line with employer expectations and the quality requirements set for engineering study programs.</p> |
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**11. Assessment**

| Activity type | 11.1 Assessment criteria                                                                                                                                                                 | 11.2 Assessment methods<br>(and type of assessment:<br>continuous/ summative)                   | 11.3 Weight<br>in final grade |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------|
| 11.4 Lecture  | <ul style="list-style-type: none"> <li>Appropriate use of the theoretical concepts studied and of technical vocabulary;</li> <li>Grammatical, lexical and discourse accuracy.</li> </ul> | <ul style="list-style-type: none"> <li>Summative assessment:<br/>Written examination</li> </ul> | 60%                           |

|                                                                                                                                           |                                                                                                                                                                                                                                                         |                                                                                                                              |      |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------|
| 11.5 Seminar/<br>Laboratory/ Project<br>/Practical activity                                                                               | <ul style="list-style-type: none"> <li>• Compliance with the required poster structure;</li> <li>• Clarity, coherence, and organization of the oral presentation;</li> <li>• Ability to present without excessive reliance on written notes.</li> </ul> | <ul style="list-style-type: none"> <li>• Summative assessment: Preparation and oral presentation of a mini-poster</li> </ul> | 40 % |
| <b>11.6 Minimum performance standard</b><br>Obtaining at least 50% of the total score for each assessment component (course and seminar). |                                                                                                                                                                                                                                                         |                                                                                                                              |      |

| Completion date: | Course coordinators | teaching rank, title First name<br>LAST NAME | Signature |
|------------------|---------------------|----------------------------------------------|-----------|
| 23.06.2026       | Lecture             | Assoc. Prof. Cristiana BULGARU, PhD          |           |
|                  | Applications        | Assoc. Prof. Cristiana BULGARU, PhD          |           |
|                  |                     |                                              |           |
|                  |                     |                                              |           |

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| Approval of the Head of the Department coordinating the course, only if this differs from the department organizing the study program | Head of the Modern Languages and Communication Department<br>Assoc.prof. Ruxandra LITERAT, Ph.D. |
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| Date of approval by the Council of the Department of Bases of Electronics                                    | Head of the Bases of Electronics Department<br>Prof. Sorin HINTEA, Ph.D. |
| 26.06.2026                                                                                                   |                                                                          |
| Date of approval by the Council of the Faculty of Electronics, Telecommunications and Information Technology | Dean,                                                                    |
| 30.06.2026                                                                                                   | Prof. Ovidiu-Aurel POP, Ph.D.                                            |